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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,576	08/21/2003	Ritu Verma	J6852(C)	8223

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EXAMINER

ARNOLD, ERNST V

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/645,576		VERMA ET AL.	
	Examiner		Art Unit	
	Ernst V. Arnold		1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The Examiner acknowledges receipt of Remarks to the first Office Action filed on 10/28/2005. Applicant has cancelled claims 10-20 without prejudice. Claims 2 and 3 have been cancelled. Claim 1 has been amended to incorporate the subject matter of claim 3. Accordingly, claims 1 and 4-9 are pending.

The Examiner has carefully considered Applicant's arguments and a detailed response can be found under the section: Response to Arguments.

Applicant's amendments have necessitated a new grounds of rejection. Claims 1 and 4-9 remain/are rejected for the reasons of record and those stated below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-9 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchnick et al. (U.S. Patent No. 5,441,726) in view of Galley et al. (U.S. Patent No. 5,609,852) and Halls (U.S. Patent No. 6,267,949).

Mitchnick et al. disclose a creamy foundation composition of the following components:

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Composition		
(1) stearic acid	5 wt. %	
(2) lipophilic glycerol monostearate	2.5	10
(3) cetylstearyl alcohol	1	
(4) propylene glycol monolaurate	3	
(5) squalane	7	
(6) olive oil	8	
(7) purified water	the balance	
(8) antiseptic	a suitable amount	15
(9) triethanolamine	1.2	
(10) sorbitol	3	
(11) titanium oxide	10	
(12) talc	3	
(13) coloring pigment	a suitable amount	
(14) zinc oxide rods	8	20
(15) perfume	a minute amount	

The foundation was prepared by mixing components 11 to 14. The un-coated zinc oxide rods (8% by weight) can be 100 nm in diameter (Column 13, lines 20 and 26-27). Components 7 through 10 are mixed together to form a solution (Column 13, lines 7-28). The zinc oxide containing component is dispersed in the solution of components 7-10 and heated to 75 °C. Components 1 through 6 (containing 5 % by weight stearic acid) are mixed and heated to 80 °C to form a solution which is then added to the solution containing zinc oxide to produce an emulsion (Column 13, lines 30-33). The emulsion is cooled under stirring to 50 °C and the final perfume ingredient is added (Column 13, lines 33-35). The mixture is cooled under stirring. The Applicant has defined asymmetric particles as fatty acids of 12 to 22 carbon atoms with stearic acid being a preferred asymmetric particle (Specification, pages 8 and 9). The cosmetic preparation of Mitchnick et al. is comprised of 5 % by weight stearic acid and 8 % by weight of zinc oxide. Mixing of these components at a temperature less than about 80 °C and cooled under stirring to a temperature of 50 °C to quench the reaction between ZnO and stearic acid would produce the solid asymmetric particles of the instant invention in at least 10% by weight of the composition (instant claim 7). In instant claim

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8, the Examiner interprets about 60 °C to about 70 °C to encompass 60 ± 6 °C to 70 ± 7 °C in which case the temperature of Mitchnick et al., 75 °C, is encompassed by that range.

1. Mitchnick et al. do not expressly teach heating the mixture of ZnO particles and stearic acid to a temperature of less than about 80 °C for about 5 to about 10 minutes.

2. Mitchnick et al. does not expressly disclose the addition of ZnO in an amount of about 1% to about 4% by weight of the cosmetic composition.

Galley et al. provide a general teaching for the preparation of sunscreen compositions comprised of metal oxides such as zinc oxide. Galley et al. disclose that the oil phase components are heated together to 70-75 °C and then mixed with the aqueous phase containing the metal oxide for 5-10 minutes. The emulsion is then cooled (See: Example 18 Column 9, lines 45-52; Example 19 Column 10, lines 20-26 and Example 20 Column 10, lines 61-67). Galley et al. disclose that fatty acid soaps, such as potassium stearate, are effective emulsifying agents that can be added to the composition (Column 4, line 52).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to prepare a composition containing zinc oxide and stearic acid by the procedure of Mitchnick et al. using the suggested heating period of 5 to 10 minutes of Galley et al. to produce metallic soap coated ZnO particles of the instantly claimed invention.

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One of ordinary skill in the art would have been motivated to do this in the interest of optimizing the amount of time required to produce the final product, which would save valuable research time and resources.

Halls discloses sunscreen compositions comprised of nano-size ZnO particles in the preferred range of 0.5-15% by weight (Column 4, lines 52-55). Halls provides compositions with 0.5, 1.0, 2.0 and 4.0% by weight zinc oxide in example numbers 8-11, respectively (Column 7, lines 1-8).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to prepare a composition of Mitchnick et al., using the heating period suggested by Galley et al., containing zinc oxide in the percent weight range of about 1 % to about 4 % as suggested by Halls to produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Halls discloses that the sun protection factor can be adjusted by judicious selection of the amount of ZnO added (0.5 to 4.0 % by weight in this example) thus creating lotions for a wide variety of consumers seeking various levels of sun protection (See: Column 7, lines 1-8).

From the teaching of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

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Response to Arguments:

1. With respect to the 112, second paragraph, rejection, Applicant asserted that one of ordinary skill in the art would understand that conversion of ZnO refers to the reduction in the initial amount of the reactant ZnO into its chemical products. Since this is based solely on the amount of ZnO converted then there is no need to specify a percent based on weight or molar basis. The rejection is withdrawn.
2. Applicant has amended instant claim 1 to include limitations not encompassed by the art rejection. The 103(a) rejection over Mitchnick et al. in view of Galley et al. and the 103(a) rejection over Mitchnick et al. in view of Galley et al. and Ramp et al. are withdrawn as the combination of these references does not teach a process wherein the ZnO is added in an amount of about 1% to about 4% by weight of the cosmetic composition.
3. Applicant and the Examiner agree that Mitchnick et al. do not expressly teach heating the mixture of ZnO particles and stearic acid to a temperature of less than about 80 °C for about 5 to about 10 minutes but rather broadly teaches heating to 75 C for an undisclosed time period followed by quenching to 50 C. It is for this reason that one of ordinary skill in the art would have sought guidance in the art and found the reference of Galley et al. which provides the guidance to heat for 5 to 10 minutes and then cool to quench the reaction. It is the Examiner's position that this would produce an incomplete reaction between ZnO and stearic acid in the instantly claimed range. Furthermore, adjusting the amount of ZnO in the composition would be immediately obvious to one of

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ordinary skill in the art for the simple fact of producing different levels of sun-screen protection.

Applicant asserted that the disclosure of Mitchnick et al. has nothing to do with solid asymmetric particles or stearic acid. On the contrary, the ZnO rods of Mitchnick et al. are asymmetric "green bean shape" (differing lengths and diameters), which possess even spreadability over surfaces, and stearic acid is a component of the composition (Column 2, lines 3-6 and 55-62; column 13, lines 5-20; and claim 13).

The Examiner is not picking and choosing elements but rather finding relevant art, which one of ordinary skill in the art would find, to fill undisclosed aspects, such as heating times, and produce the instant invention.

When the process appears to produce the same product as instantly claimed, the burden is shifted to applicant to demonstrate unexpected results to overcome the art rejections.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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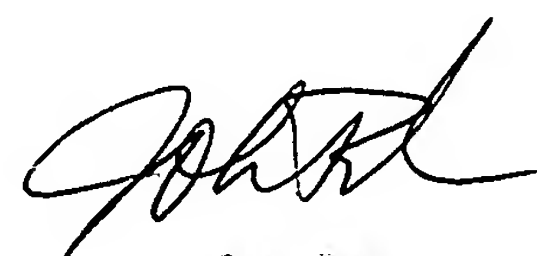
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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